

EIA-930 Hurricane Irma Impact Tracking Report

Thursday September 14, 2017, 19:00 hours



For additional information contact:

infoelectric@eia.gov

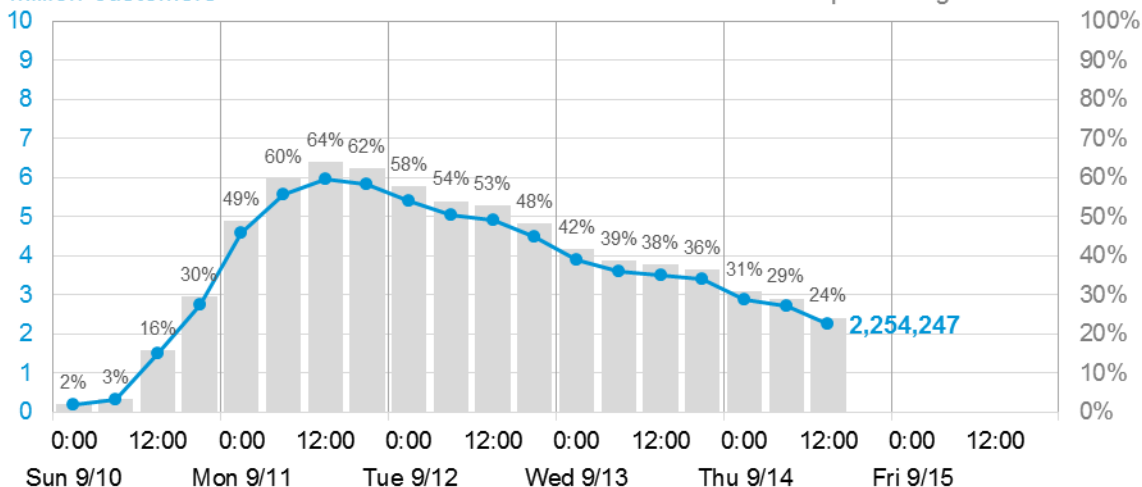


Florida's Top 10 Utilities by Customer Size

Power Outages

Power outages in Florida's 10 largest utilities (by # of customers)

million customers



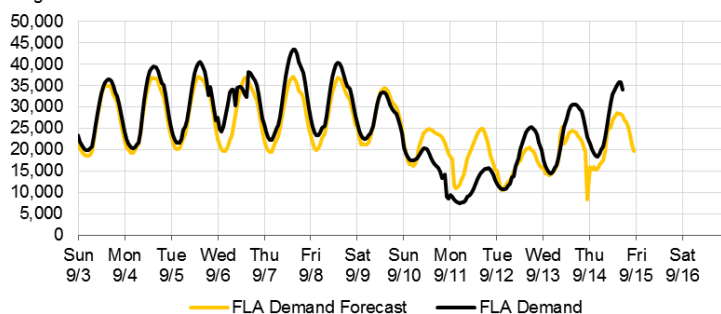
- Power outages in Florida's 10 biggest utilities as of 12 pm Thursday affected 2.4 million customers—24% of the utilities' total number of customers and about 38% of the peak amount of outages seen on Monday.

Source: EIA based on data collected from utility outage websites

Florida Region (FLA)

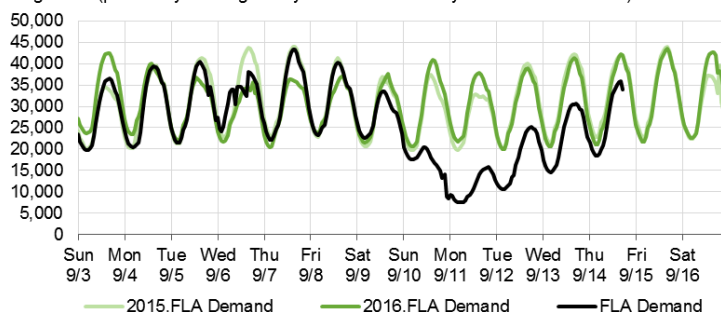
Current demand vs. day-ahead forecast

megawatts



Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)

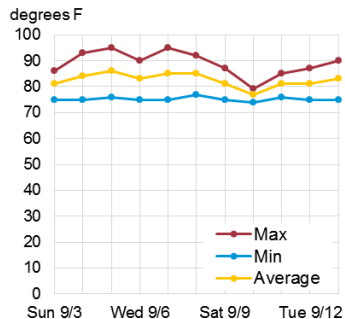


- Aggregate electricity demand for Florida balancing authorities continues to recover day-over-day since the lows seen early Monday. After peaking at 30,535 MW on Wednesday, Florida demand exceeded 35,000 MW Thursday afternoon, nearing pre-hurricane levels which ranged roughly between 36,000-43,000 MW.
- Demand has been exceeding the forecast significantly since Tuesday during evening peak hours.

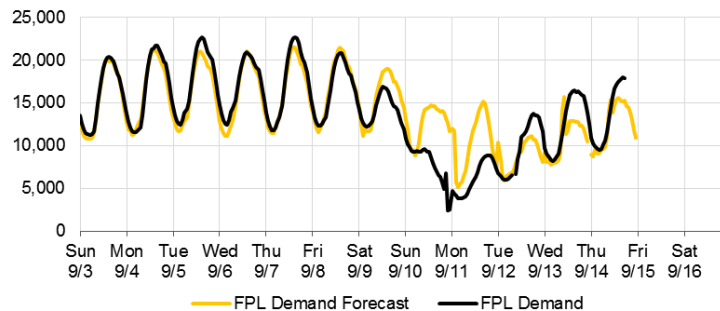
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid

Florida Power & Light Balancing Authority (FPL)

**Daily temperature ranges
Fort Myers**



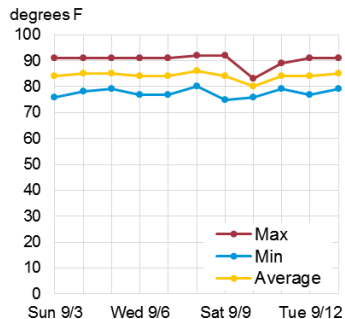
Current demand vs. day-ahead forecast
megawatts



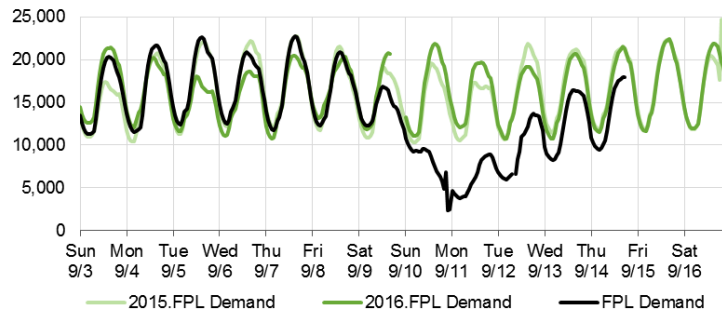
FPL is Florida's largest utility serving most of southern Florida and along its east coast (see map on last slide).

- Electricity demand peaked at 16,419 MW on Wednesday and reached just under 18,000 MW on Thursday for hour ending 5 pm. Demand continues to exceed forecasts significantly during evenings.
- FPL expects all East Coast customers "essentially" restored by Sunday, 9/17 and all West Coast customers (south of Tampa) restored by Friday, 9/22 except those pockets with severe damage.
- Daily max temperatures dropped 16° over 3 days in Ft. Myers and 9° over 1 day in W. Palm Beach before and after the hurricane. The significant drops in temps contributed to the decrease in demand along with evacuations and outages.

W. Palm Beach (near Miami)



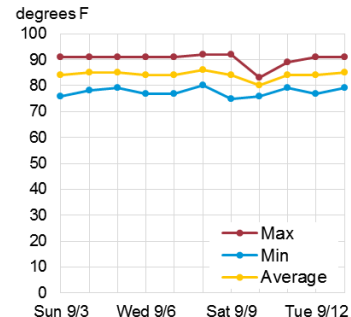
Current demand vs. 2015 and 2016
megawatts (previous years aligned by week number & day of week to 2017 data)



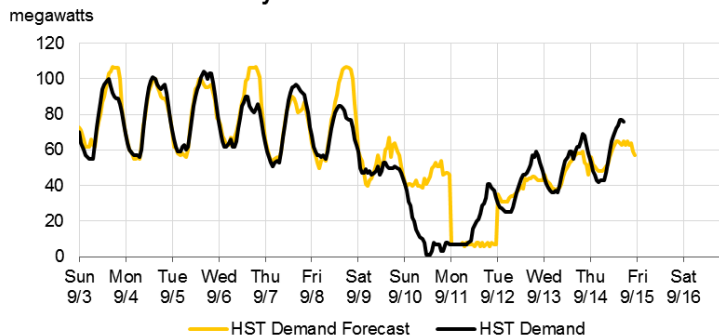
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

City of Homestead Balancing Authority (HST)

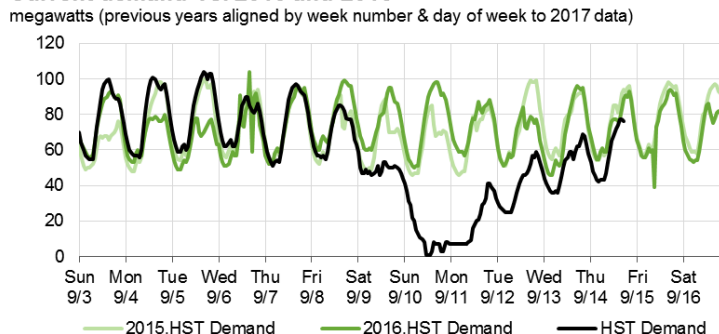
Daily temperature ranges
W. Palm Beach (near Miami)



Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



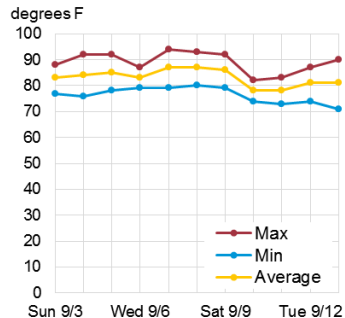
Homestead is located on the southeast coast of Florida and is one of the first U.S. cities and balancing authorities to experience the hurricane.

- Demand in Homestead is recovering after dropping to zero around noon Sunday. Demand peaked at 69 MW on Wednesday and reached 77 MW on Thursday for hour ending 5 pm, still somewhat below pre-hurricane levels.
- Outages: All customers should be restored by Sunday, 9/17 though most will get power sooner.
- Daily max temperatures dropped 9° over 1 day in W. Palm Beach before and after the hurricane. The significant drop in temps contributed to the decrease in demand along with evacuations and outages.

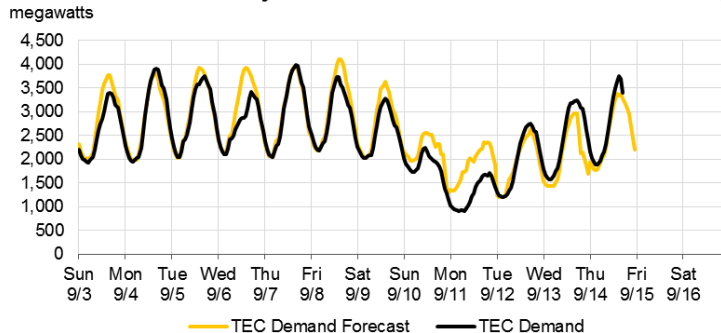
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

Tampa Electric Balancing Authority (TEC)

Daily temperature ranges St. Petersburg (near Tampa)



Current demand vs. day-ahead forecast

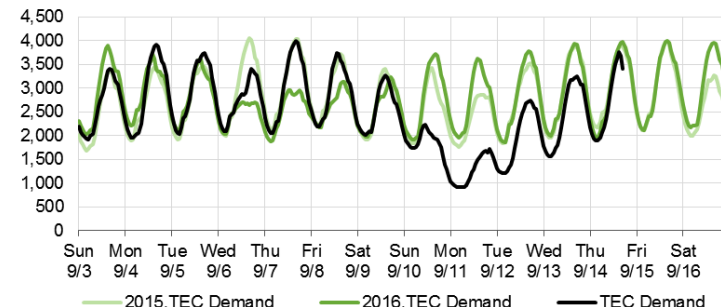


Tampa Electric serves the City of Tampa halfway up the west coast of the Florida peninsula.

- Demand peaked at 3,246 MW on Wednesday and reached 3,751 MW on Thursday for hour ending 4 pm, well within pre-hurricane levels.
- Demand has slightly exceeded the forecast on Wednesday and somewhat more on Thursday.
- Outages: TECO announced Tuesday afternoon that they will restore “essentially” all power by Sunday night, 9/17.
- Daily max temperatures dropped 10° over 1 day in St. Petersburg before and after the hurricane. The significant drop in temps contributed to the decrease in demand along with evacuations and outages.

Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)

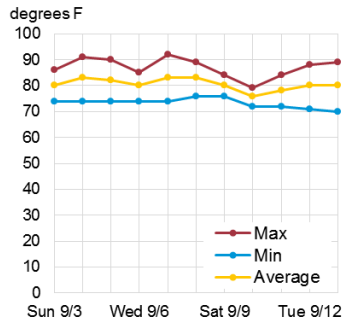


Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

Duke Energy Florida Balancing Authority (FPC)

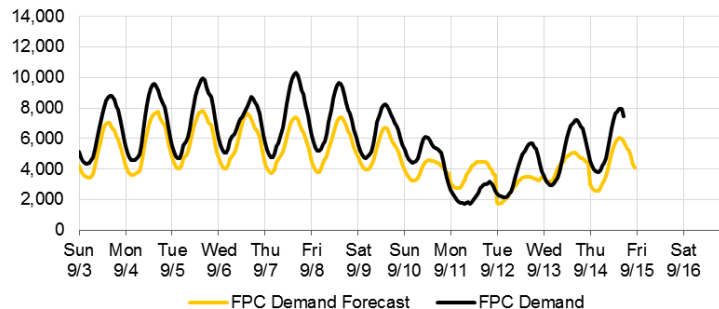
Daily temperature ranges

Orlando



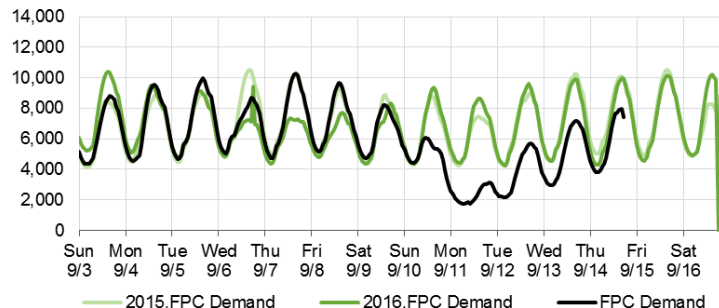
Current demand vs. day-ahead forecast

megawatts



Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)



Duke Energy Florida's service territory extends from the center of the state north to the Panhandle on the Gulf side of the state.

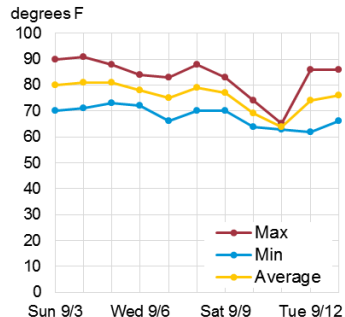
- Electricity demand peaked at 7,183 MW on Wednesday and reached 7,940 on Thursday for hour ending 5 pm, nearing the pre-hurricane range.
- Outages: Duke Energy announced Tuesday afternoon that it expects to have power restored to most customers by midnight, Sunday, September 17. Two counties south of Orlando were severely impacted and will take longer as the electrical system there is rebuilt.
- Daily max temperatures dropped 13° over 3 days in Orlando before and after the hurricane. The significant drop in temps contributed to the decrease in demand along with evacuations and outages.



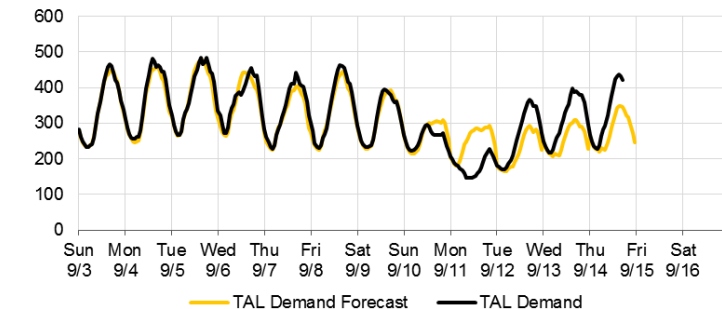
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

City of Tallahassee Balancing Authority (TAL)

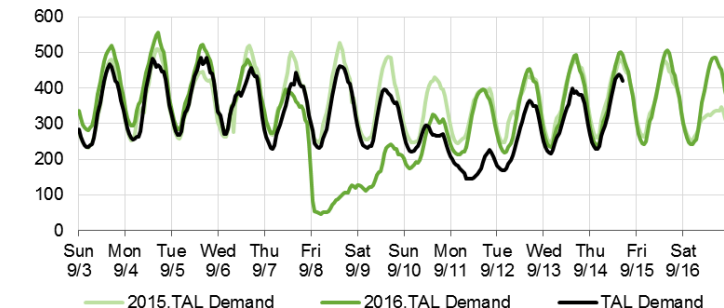
Daily temperature ranges
Tallahassee



Current demand vs. day-ahead forecast
megawatts



Current demand vs. 2015 and 2016
megawatts (previous years aligned by week number & day of week to 2017 data)



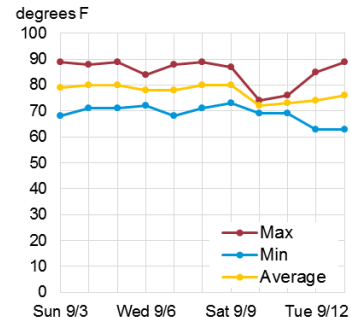
Tallahassee is a municipal utility located in the Florida panhandle.

- Tallahassee demand peaked at 399 MW on Wednesday and reached 438 MW on Thursday for hour ending 5 pm, nearing pre-hurricane levels.
- Daily max temperatures dropped precipitously 23° over 3 days in Tallahassee before and after the hurricane. The significant drop in temps contributed to the decrease in demand along with evacuations and outages.
- Note the demand for 2016. This reflects the direct hit Tallahassee sustained from Hurricane Hermine.

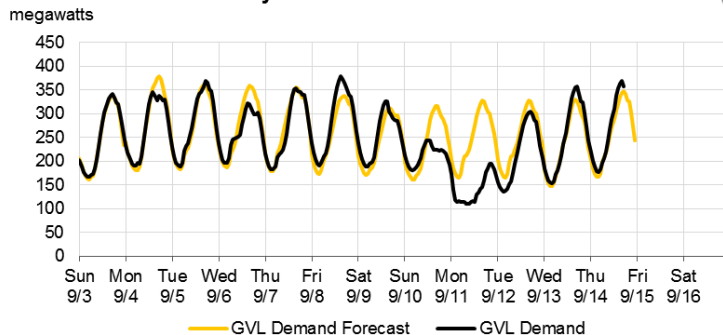
Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

Gainesville Regional Utilities (GVL)

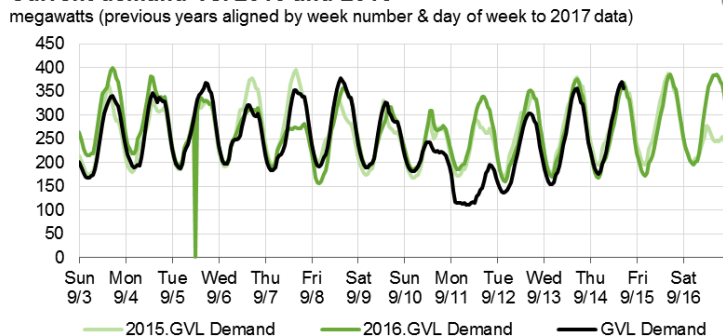
**Daily temperature ranges
Gainesville**



Current demand vs. day-ahead forecast



Current demand vs. 2015 and 2016



Gainesville is a municipal utility located in the middle of the northern part of the Florida peninsula.

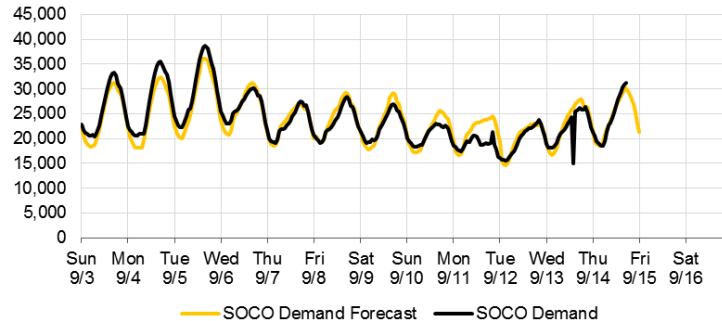
- Gainesville demand peaked at 357 MW on Wednesday and reached 369 MW on Thursday for hour ending 5 pm, seemingly back to pre-hurricane levels.
- Outages: As of 5 am Thursday, Gainesville had 5,429 customers without power and 58,886 customers restored.
- Daily max temperatures dropped 15° over 2 days in Gainesville before and after the hurricane. The significant drop in temps contributed to the decrease in demand along with evacuations and outages.

Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid; NOAA, National Weather Service

Southern Company Services Balancing Authority (SOCO)

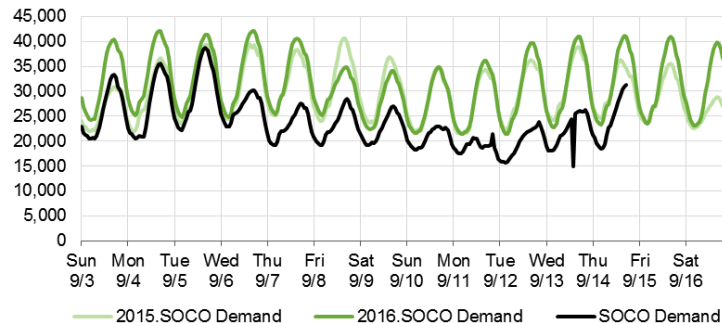
Current demand vs. day-ahead forecast

megawatts



Current demand vs. 2015 and 2016

megawatts (previous years aligned by week number & day of week to 2017 data)

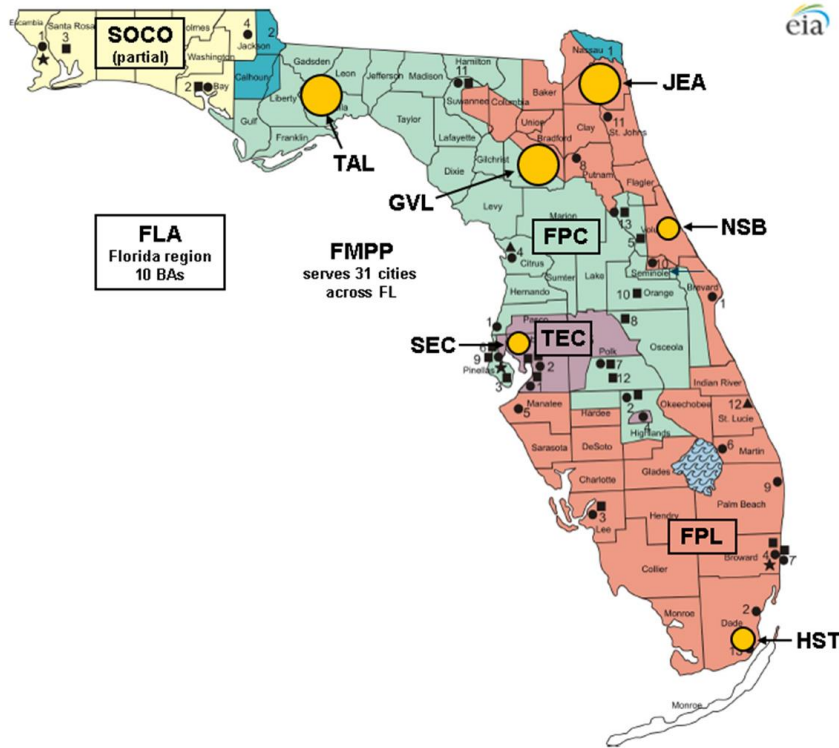


Southern Company and its subsidiaries' territory is expansive, covering much of Georgia, Alabama, Mississippi and part of western Florida.

- SOCO electricity demand is slowly increasing from Monday's lows. Demand peaked at 26,350 MW on Wednesday and reached 31,268 MW on Thursday for hour ending 6 pm, not quite back up to pre-hurricane levels although close to demand forecasts.
- Outages: 95% of customers expected to be restored by Sunday night, 9/17

Source: EIA, Hourly and Daily Balancing Authority Operations Report (EIA-930) https://www.eia.gov/beta/realtime_grid

Balancing Authorities and Utility Service Territories in Florida



- TAL: City of Tallahassee
- JEA: Jacksonville Electric Authority
- GVL: Gainesville Regional Utilities
- NSB: City of New Smyrna Beach
- FPC: Florida Power Corp.
- TEC: Tampa Electric Co.
- SEC: Seminole Electric Cooperative
- FMPP: Florida Municipal Power (serves 31 cities across the state)
- FPL: Florida Power & Light
- HST: City of Homestead
- SOCO: Southern Company (partially in Florida, not included in FLA region total)

Source: Florida Public Service Commission as augmented by EIA

Balancing Authorities and Utility Service Territories in Southeast



- SOCO: Southern Company
- SCEG: South Carolina Electric & Gas
- AEC: PowerSouth Energy Co-op

Source: Southern Company, South Carolina Electric & Gas as augmented by EIA